UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,263	09/12/2003	Christopher Berti	600.1289	7788

23280 7590 12/18/2008

Davidson, Davidson & Kappel, LLC
485 7th Avenue
14th Floor
New York, NY 10018

EXAMINER	
DICKERSON, CHAD S	
ART UNIT	PAPER NUMBER
2625	

MAIL DATE	DELIVERY MODE
12/18/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/661,263	BERTI ET AL.	
	Examiner	Art Unit	
	CHAD DICKERSON	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 October 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection. The amendment to the claims has necessitated a new ground(s) of rejection. However, the same references are applied to the claims in question.

In the Amendment filed 10/1/2008, the applicant traverses the rejections of the claims. The Examiner reviewed the many assertions made by the Applicant regarding the independent claims, 1, 8 and 13. Despite the alleged shortcomings of Zingher and Löffler, the Examiner still believes that both references still read on the claim amendment. When looking at the Löffler reference, in column 5, line 14 through column 6, line 11, the reference discloses establishing an order of adjustments and maintenance operations. In the cited portion, in column 5, lines 14-31, the system discloses changing an ink profile from a recently performed job to a subsequent job. Here, this process discloses adjusting ink dosing elements and inking unit rotations for removal of an old profile. Since in paragraph [0006] of Applicant's specification, the adjustment and maintenance operations are disclosed as simply changing the printing ink used in the system, the Examiner believes that with the above mentioned examples of Löffler functions, the amended claim feature is performed. It is understood that the above steps for creating this new inking profile is based on calculations of the subsequent print job's profile and seeing how close this calculation matches with the previous print job's ink profile. With the system checking to see how close the two

profiles might be in order to see how much changing in the system is needed implies that the function of the comparison step is performed. This information is disclosed in column 5, line 32 through column 6, line 11.

Regarding the argued feature of the ordering of these adjustments and maintenance operations, the volumetric difference indicator is used to determine what operation will be done when the system comes to changing a profile from one to another. If the volume difference indicator detects a difference between the two profiles that amount to zero, in the adjustment and maintenance operation, the actual adjustment of the profile becomes unnecessary. If this step is omitted, this is establishing an order of adjustment and maintenance operations that do not include an adjustment of inking profiles. However, if the volume difference indicator is above or below zero, then two other different processes are established in order to change inking profiles to output a subsequent job (see col. 12, ln 52-col. 13, ln 52). The Löffler reference discloses the feature of establishing an order of adjustment and maintenance operations to be carried out during a job change based on the information gathered from the current job and the subsequent job.

Applicant reasserts that the reference of Rai '747 should not be used since, in Applicant's opinion, one of ordinary skill in the art would not combine the two references. The Examiner respectfully disagrees with this assertion.

With the combination of Zingher '468 and Löffler '820, the combination of the references involves finding an efficient manner to produce printing products. The reference of Rai '747 is used for producing print jobs using production devices, which is

similar to the above references (see Rai '747 paragraph [0027]). The reference also uses parameters entered into the system regarding the jobs to decide other optimal parameters to use for outputting a job. In Rai, a server is used as a data processing device, similar to the reference of Zingher using a data processing device, in order for the production system in the invention of Rai to be optimized for printing different materials (see paragraph [0027]-[0029]). The Rai and Zingher references both use information about the print job itself to determine a manner in which to produce the print job. Since both of these inventions are concerned with producing printed material, they are deemed to be in the same field of endeavor and it would have been obvious to one of ordinary skill in the art to combine the above references to perform the feature of claim 3 since both inventions are in the same field of endeavor.

Applicant reasserts that the reference of Yacoub '805 would not have been obvious to one of ordinary skill to combine to perform the claim limitation of claim 4. The Examiner respectfully disagrees with this assertion.

Similar to the Rai reference mentioned above, the users in the Yacoub reference are considered to be the operating personal since they are able to utilize the printing equipment used in the system by sending printing instructions to the printer for the printing system to perform printing operations. The system of Yacoub discloses choosing the printer that is physically closest to the user, which performs the feature of taking the distance of the user to the actual printing equipment that performs the print job into account when determining what printer to use in the system (see paragraphs [0024] and [0025]). The reference of Zingher '468 discloses taking parameters into

account to determine optimal parameters to perform a procedure to process a print job. Since both references of Zingher and Yacoub are concerned with determining parameters to perform a procedure to process a print job (see Yacoub '805 paragraph [0009]), both references are considered as being in the same field of endeavor. Since both inventions are considered to be in the same field of endeavor, the combination of the Zingher '468 reference with the features of Yacoub '805 would have been obvious to one of ordinary skill in order to disclose the feature of claim 4.

Applicant reasserts that the reference of Bauer '461 does not disclose the feature of "wherein the operating personal are guided through individual steps of a calculated order of processes via one or more display devices mounted on the printing-material processing machine". The Examiner again respectfully disagrees with this assertion.

Shown in paragraph [0013] a sentence states "New print jobs to be scheduled and coordinated can be preplanned and precalculated". The above mentioned paragraph describes print jobs being calculated in the printing process before they are scheduled and coordinated. These scheduled and coordinated events are then displayed to the user. Since the planning board (4) is used to display information to the user regarding the production of the print jobs that are scheduled, coordinated and were calculated before there placement in the system, the above feature of the claim is performed. Therefore, the processes involving the order of the printing jobs being processed is calculated in the system, and the combined features of Zingher '468 and Bauer '461 perform the above feature of claim 6.

In light of the above arguments, the reference used to disclose the claim limitations are maintained below.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 2, 8, 13, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zingher '468 (USP 5930468) in view of Löffler '820 (USP 5010820). Re claim 1: Zingher '468 discloses a method for determining an optimum procedure for a job change on a printing-material processing machine having at least one control computer, the method comprising:

comparing first data of a first machine job to second data of a subsequent machine job using the at least one control computer (i.e. in Zingher '468, the image contents of the print jobs, considered as the data of a machine job, are compared to one another. The above feature is performed since the image contents of individual print jobs are compared to one another in pairs or twos. This means that image contents of a first print job is compared to the image contents of a subsequent print job. The image contents are analogous to the first and second print data. This process is controlled by the data processing device, which is able to compare print jobs in pairs since an order of the processing of a current print job is based on the comparison of the current print

job and the previous print job; see fig. 4; col. 3, lines 1-66, col. 4, lines 1-17, 44-63 and col. 5, lines 8-49), and

establishing an order of the operations to be carried out during the job change between the first machine job and the subsequent machine job as a function of the comparing step (i.e. a sequence in which to process the print jobs is established or determined in the actual sequence based on the comparison between print jobs in pairs. Certain jobs may be rearranged, or may have a job change, in processing depending on the comparison between the image contents of the print jobs. Column 7 shows an example of establishing an order of operations to be carried out when individual print jobs are compared based on their image contents. Also, listed in the prior art in column 1, the system mentions prioritized print jobs. The print jobs go through the system and a designated print job is used to change the system's manner of processing print jobs from a FIFO method to a FILO method. This process occurs when a job that was waiting to be processed is currently the job being processed (i.e. a job change) and this job changes the manner in which certain jobs are processed (i.e. changing the order of processing the print jobs in the device, which is similar to changing the order of operations). Lastly, the prior art mentioned in column 1, discloses changing ink metering elements in a targeted manner during a job change, but is not specific in the manner; see col. 1, lines 15-67, col. 3, lines 1-66, col. 4, lines 1-17, 44-63 and col. 7, lines 19-64).

However, Zingher '468 fails to specifically teach establishing an order of adjustment and maintenance operations to be carried out during the job change.

However, this is well known in the art as evidenced by Löffler '820. Löffler '820 discloses establishing an order of operations to be carried out during the job change (i.e. like the invention of Zingher, the Löffler reference is used to output printing information using production equipment (same field of endeavor). However, when looking at the Löffler reference, in column 5 line 14 through column 6, line 11, the reference discloses establishing an order of adjustments and maintenance operations. In the cited portion, in column 5, lines 14-31, the system discloses changing an ink profile from a recently performed job to a subsequent job. Here, this process discloses adjusting ink dosing elements and inking unit rotations for removal of an old profile. Since in paragraph [0006] of Applicant's specification, the adjustment and maintenance operations are disclosed as simply changing the printing ink used in the system, the Examiner believes that with the above mentioned examples of functions of Löffler, the amended claim feature is performed. It is understood that the above steps for creating this new inking profile is based on calculations of the subsequent print job's profile and seeing how close this calculation matches with the previous print job's ink profile. With the system checking to see how close the two profiles might be in order to see how much changing in the system is needed implies that the function of the comparison step is performed. This information is disclosed in column 5, line 32 through column 6, line 11. Regarding the argued feature of the ordering of these adjustments and maintenance operations, the volumetric difference indicator is used to determine what operation will be done when the system comes to changing a profile from one to another. If the volume difference indicator detects a difference between the two profiles

that amount to zero, in the adjustment and maintenance operation, the actual adjustment of the profile becomes unnecessary. If this step is omitted, this is establishing an order of adjustment and maintenance operations that do not include an adjustment of inking profiles. However, if the volume difference indicators are above or below zero, then two other different processes are established in order to change inking profiles to output a subsequent job (see col. 12, ln 52-col. 13, ln 52). The Löffler reference discloses the feature of establishing an order of adjustment and maintenance operations to be carried out during a job change based on the information gathered from the current job and the subsequent job).

Therefore, in view of Löffler '820, it would have been obvious to one of ordinary skill at the time the invention was made to have the feature of establishing an order of operations to be carried out during the job change in order to have the establishment of an ink profile required for a subsequent print job accomplished by individual process steps (as stated in Löffler '820 col. 4, ln 49-58).

Re claim 2: The method as recited in claim 1 wherein the order of operations to be carried out during the job change is calculated in such a manner that a set-up time or a downtime during the job change is minimized (i.e. the sequence in which individual print jobs are carried out one after another during which a job change occurs in performed in a manner in which the setting time needed to change the print job is minimal; see col. 3, lines 1-66, col. 4, lines 1-17).

Re claim 8: A device for determining an optimum procedure for a job change on a printing-material processing machine comprising:

at least one control computer comparing first data of a first machine job to second data of a subsequent machine job (i.e. in Zingher '468, the image contents of the print jobs, considered as the data of a machine job, are compared to one another. The above feature is performed since the image contents of individual print jobs are compared to one another in pairs or twos. This means that image contents of a first print job is compared to the image contents of a subsequent print job. The image contents are analogous to the first and second print data. This process is controlled by the data processing device, which is able to compare print jobs in pairs since an order of the processing of a current print job is based on the comparison of the current print job and the previous print job; see fig. 4; col. 3, lines 1-66, col. 4, lines 1-17, 44-63 and col. 5, lines 8-49), and

executing program steps as a function of the comparing step to establish an order of operations to be carried out (i.e. a sequence in which to process the print jobs is established or determined in the actual sequence based on the comparison between print jobs in pairs. Certain jobs may be rearranged, or may have a job change, in processing depending on the comparison between the image contents of the print jobs. Column 7 shows an example of establishing an order of operations to be carried out when individual print jobs are compared based on their image contents. Also, listed in the prior art in column 1, the system mentions prioritized print jobs. The print jobs go through the system and a designated print job is used to change the system's manner of

processing print jobs from a FIFO method to a FILO method. This process occurs when a job that was waiting to be processed is currently the job being processed (i.e. a job change) and this job changes the manner in which certain jobs are processed (i.e. changing the order of processing the print jobs in the device, which is similar to changing the order of operations). Lastly, the prior art mentioned in column 1, discloses changing ink metering elements in a targeted manner during a job change, but is not specific in the manner; see col. 1, lines 15-67, col. 3, lines 1-66, col. 4, lines 1-17, 44-63 and col. 7, lines 19-64).

However, Zingher '468 fails to specifically teach to establish an order of operations to be carried out during the job change.

However, this is well known in the art as evidenced by Löffler '820. Löffler '820 discloses to establish an order of operations to be carried out during the job change (i.e. like the invention of Zingher, the Löffler reference is used to output printing information using production equipment (same field of endeavor). However, when looking at the Löffler reference, in column 5 line 14 through column 6, line 11, the reference discloses establishing an order of adjustments and maintenance operations. In the cited portion, in column 5, lines 14-31, the system discloses changing an ink profile from a recently performed job to a subsequent job. Here, this process discloses adjusting ink dosing elements and inking unit rotations for removal of an old profile. Since in paragraph [0006] of Applicant's specification, the adjustment and maintenance operations are disclosed as simply changing the printing ink used in the system, the Examiner believes that with the above mentioned examples of functions of Löffler, the amended claim

feature is performed. It is understood that the above steps for creating this new inking profile is based on calculations of the subsequent print job's profile and seeing how close this calculation matches with the previous print job's ink profile. With the system checking to see how close the two profiles might be in order to see how much changing in the system is needed implies that the function of the comparison step is performed. This information is disclosed in column 5, line 32 through column 6, line 11. Regarding the argued feature of the ordering of these adjustments and maintenance operations, the volumetric difference indicator is used to determine what operation will be done when the system comes to changing a profile from one to another. If the volume difference indicator detects a difference between the two profiles that amount to zero, in the adjustment and maintenance operation, the actual adjustment of the profile becomes unnecessary. If this step is omitted, this is establishing an order of adjustment and maintenance operations that do not include an adjustment of inking profiles. However, if the volume difference indicators are above or below zero, then two other different processes are established in order to change inking profiles to output a subsequent job (see col. 12, ln 52-col. 13, ln 52). The Löffler reference discloses the feature of establishing an order of adjustment and maintenance operations to be carried out during a job change based on the information gathered from the current job and the subsequent job).

Therefore, in view of Löffler '820, it would have been obvious to one of ordinary skill at the time the invention was made to have the feature of to establish an order of operations to be carried out during the job change in order to have the establishment of

an ink profile required for a subsequent print job accomplished by individual process steps (as stated in Löffler '820 col. 4, ln 49-58).

Re claim 13: Zingher '468 discloses a printing press comprising:

a device for determining an optimum procedure for a job change between a first machine job and a subsequent machine job on a printing-material processing machine (the data processing device is used to perform the determination of an optimum procedure for a job change on a printing machine. The optimum procedure for the job change is in terms of time, process and/or economy of materials; see fig. 4; col. 3, lines 1-66, col. 4, lines 1-17, 44-63 and col. 5, lines 8-49),

the device including at least one control computer comparing first data of a first machine job to second data of a subsequent machine job (i.e. in Zingher '468, the image contents of the print jobs, considered as the data of a machine job, are compared to one another. The above feature is performed since the image contents of individual print jobs are compared to one another in pairs or twos. This means that image contents of a first print job is compared to the image contents of a subsequent print job. The image contents are analogous to the first and second print data. This process is controlled by the data processing device, which is able to compare print jobs in pairs since an order of the processing of a current print job is based on the comparison of the current print job and the previous print job; see fig. 4; col. 3, lines 1-66, col. 4, lines 1-17, 44-63 and col. 5, lines 8-49), and

executing program steps as a function of the comparing step to establish an order of operations to be carried out between the first machine job and the subsequent machine job (i.e. a sequence in which to process the print jobs is established or determined in the actual sequence based on the comparison between print jobs in pairs. Certain jobs may be rearranged, or may have a job change, in processing depending on the comparison between the image contents of the print jobs. Column 7 shows an example of establishing an order of operations to be carried out when individual print jobs are compared based on their image contents. Also, listed in the prior art in column 1, the system mentions prioritized print jobs. The print jobs go through the system and a designated print job is used to change the system's manner of processing print jobs from a FIFO method to a FILO method. This process occurs when a job that was waiting to be processed is currently the job being processed (i.e. a job change) and this job changes the manner in which certain jobs are processed (i.e. changing the order of processing the print jobs in the device, which is similar to changing the order of operations). Lastly, the prior art mentioned in column 1, discloses changing ink metering elements in a targeted manner during a job change, but is not specific in the manner; see col. 1, lines 15-67, col. 3, lines 1-66, col. 4, lines 1-17, 44-63 and col. 7, lines 19-64).

However, Zingher '468 fails to specifically teach to establish an order of operations to be carried out during the job change.

However, this is well known in the art as evidenced by Löffler '820. Löffler '820 discloses to establish an order of operations to be carried out during the job change (i.e.

like the invention of Zingher, the Löffler reference is used to output printing information using production equipment (same field of endeavor). However, when looking at the Löffler reference, in column 5 line 14 through column 6, line 11, the reference discloses establishing an order of adjustments and maintenance operations. In the cited portion, in column 5, lines 14-31, the system discloses changing an ink profile from a recently performed job to a subsequent job. Here, this process discloses adjusting ink dosing elements and inking unit rotations for removal of an old profile. Since in paragraph [0006] of Applicant's specification, the adjustment and maintenance operations are disclosed as simply changing the printing ink used in the system, the Examiner believes that with the above mentioned examples of functions of Löffler, the amended claim feature is performed. It is understood that the above steps for creating this new inking profile is based on calculations of the subsequent print job's profile and seeing how close this calculation matches with the previous print job's ink profile. With the system checking to see how close the two profiles might be in order to see how much changing in the system is needed implies that the function of the comparison step is performed. This information is disclosed in column 5, line 32 through column 6, line 11. Regarding the argued feature of the ordering of these adjustments and maintenance operations, the volumetric difference indicator is used to determine what operation will be done when the system comes to changing a profile from one to another. If the volume difference indicator detects a difference between the two profiles that amount to zero, in the adjustment and maintenance operation, the actual adjustment of the profile becomes unnecessary. If this step is omitted, this is establishing an order of adjustment

and maintenance operations that do not include an adjustment of inking profiles. However, if the volume difference indicators are above or below zero, then two other different processes are established in order to change inking profiles to output a subsequent job (see col. 12, ln 52-col. 13, ln 52). The Löffler reference discloses the feature of establishing an order of adjustment and maintenance operations to be carried out during a job change based on the information gathered from the current job and the subsequent job).

Therefore, in view of Löffler '820, it would have been obvious to one of ordinary skill at the time the invention was made to have the feature of to establish an order of operations to be carried out during the job change in order to have the establishment of an ink profile required for a subsequent print job accomplished by individual process steps (as stated in Löffler '820 col. 4, ln 49-58).

Re claim 17: The teachings of Zingher '468 are disclosed above.
Zingher '468 discloses the method of claim 1 wherein the establishing of the order of operations is based solely on the comparing of the first data to the second data (i.e. in the system the print jobs are compared to each other in pairs, or one job to another job. Once this comparison is performed by the system, the print jobs are order in an established manner and the operations, or working steps that are used to process those print jobs in the most efficient manner are also ordered. One job change to another may merit a change in printing form or ink profile. This change in either operation in the

printing device depends on the comparison between the two jobs; see col. 3, lines 1-67 and col. 4, lines 1-17).

Re claim 18: The teachings of Zingher '468 are disclosed above.
Zingher '468 discloses the method as recited in claim 1 wherein the establishing step includes determining if a first of the operation should occur prior to a second of the operations (i.e. in the system, the print processing of a certain job is performed before other print jobs. The printing operation of one print job can occur before other print jobs depending on the traits of the print job. With the system performing certain operations, such as the printing form, ink profile or film thickness, the change of these operations are performed depending on the order of the print jobs in the system. The different operations that are needed depend on the certain operations needed by the order of print jobs. For example, if a print job needs a change in the ink profile and this print job is first, while a second print job needs a change in film thickness, then the operation of changing the ink profile will occur first and the change in film thickness will occur second. This is an example of a printing process operation being determined to occur before or after a certain process; see col. 3, lines 1-67 and col. 4, lines 1-17).

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zingher '468, as modified by the features of Löffler '820, as applied to claims 1, 8 and 13 above, and further in view of Rai '747 (US Pub No 2003/0149747).
Re claim 3: The teachings of Zingher '468 and Löffler '820 are disclosed above.

Zingher '468 discloses the method wherein a number of printing-material is taken into account in the determination of the optimum procedure (i.e. when the system of Zingher '468 evaluates the print jobs, the print jobs are compared in pairs and the overall number of print jobs are all compared to each other in order to determine an optimum procedure for print job change; see fig. 4; col. 3, lines 1-66, col. 4, lines 1-17, 44-63 and col. 5, lines 8-49).

However, Zingher '468 fails to teach a number of operating personnel of the printing-material processing machine is taken into account in the determination of the optimum procedure.

However, this is well known in the art as evidenced by Rai '747. Rai '747 discloses a number of operating personnel of the printing-material processing machine is taken into account in the determination of the optimum procedure (i.e. the reference of Rai '747 is used for producing print jobs using production devices, which is similar to the above references (same field of endeavor). However, in determining the resource requirements of each stage of the production process of the print job, the number of available operators is used in finding the requirements. The feature of using the number of operators in the system for the production process in Rai '747 incorporated with the process of finding the optimum procedure to perform during a job change in Zingher '468, performs the above feature; see paragraph [0029]).

Therefore, in view of Rai '747, it would have been obvious to one of ordinary skill at the time the invention was made to have a number of operating personnel of the printing-material processing machine is taken into account in the determination of the

optimum procedure in order to find the resource requirements in the production process of a print job (as stated in Rai '747 paragraph [0029]).

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zingher '468, as modified by the features of Löffler '820, as applied to claims 1, 8 and 13 above, and further in view of Yacoub '805 (US Pub No 2003/0011805).

Re claim 4: The teachings of Zingher '468 and Löffler '820 are disclosed above.

Zingher '468 teaches carrying out the order of processes of the optimum procedure (i.e. after the system of Zingher '468 compares the pairs of print jobs and finds the most suitable way to process the print jobs, the process is carried out to perform the optimum procedure; see fig. 4; col. 3, lines 1-66, col. 4, lines 1-17, 44-63 and col. 5, lines 8-49).

However, Zingher '468 fails to teach the method wherein a length of paths to be traveled by operating personnel of the printing-material processing machine while carrying out the order of processes is taken into account in the determination of the optimum procedure.

However, this is well known in the art as evidenced by Yacoub '805. Yacoub '805 discloses a length of paths to be traveled by operating personnel of the printing-material processing machine while carrying out the order of processes is taken into account in the determination of the optimum procedure (i.e. both references of Zingher and Yacoub are concerned with determining parameters to perform a procedure to process a print job (same field of endeavor). However, Yacoub '805 takes into account,

while finding the most suitable printer to perform the print job, the closest printer to the user. The distance the user will travel has to be shortest possible to be convenient to the user. The feature of taking into account the distance the user has to travel of in Yacoub '805 incorporated with the determination of different factors in the optimum procedure while carrying out the order of processes in Zingher '468 performs the above feature; see paragraphs [0024] and [0025]).

Therefore, in view of Yacoub '805, it would have been obvious to one of ordinary skill at the time the invention was made to have a length of paths to be traveled by operating personnel of the printing-material processing machine while carrying out the order of processes is taken into account in the determination of the optimum procedure in order to find the most appropriate printer in relation to the physical location of the printer in proximity to the user (as stated in Yacoub '805 paragraph [0025]).

6. Claims 5, 6, 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zingher '468, as modified by the features of Löffler '820, as applied to claims 1, 8 and 13 above, and further in view of Bauer '461 (US Pub No 2001/0039461).

Re claim 5: The teachings of Zingher '468 and Löffler '820 are disclosed above.

However, Zingher '468 fails to teach the method further comprising visually displaying the established order of processes to operating personnel.

However, this is well known in the art as evidenced by Bauer '461. Bauer '461 discloses comprising visually displaying the established order of processes to operating personnel (i.e. like the references of Zingher '468 and Löffler '820, the Bauer reference

is used to output print jobs using production equipment (same field of endeavor). However, Bauer '461 has a planning board with display elements for displaying the individual or number of printing processes that are coordinated and scheduled in the system and this can be shown to operating personnel; see fig.1; paragraphs [0020] and [0029]-[0032]).

Therefore, in view of Bauer '461, it would have been obvious to one of ordinary skill at the time the invention was made to visually display the established order of processes to operating personnel in order to display individual or a number printing processes to be understood quickly by the operating personnel (as stated in Bauer '461 paragraphs [0020] and [0029]).

Re claim 6: The teachings of Zingher '468 in view of Löffler '820 and Bauer '461 are disclosed above.

However, Zingher '468 fails to teach the method wherein the operating personnel are guided through the individual steps of the calculated order of processes via one or more display devices mounted on the printing-material processing machine.

However, this is well known in the art as evidenced by Bauer '461. Bauer '461 discloses the operating personnel are guided through the individual steps of the calculated order of processes via one or more display devices mounted on the printing-material processing machine (i.e. like the references of Zingher '468 and Löffler '820, the Bauer reference is used to output print jobs using production equipment (same field of endeavor). However, Bauer '461 has a planning board with display elements for

displaying the individual or number of printing processes that are coordinated and scheduled in the system and this can be shown to operating personnel. The system of Bauer describes print jobs being calculated in the printing process before they are scheduled and coordinated. These scheduled and coordinated events are then displayed to the user. As the user desires to change the processes on the planning board (4) using the input element (5), the user can see the display of the planning board and use the “drag and drop” technology provided to see the individual steps of the processes and be guided through the process of the planning board (4). Bauer '461 incorporated with the feature of calculating the best order of processes to process a print job in Zingher '468 performs the above feature; see fig.1; paragraphs [0020] and [0029]-[0032]).

Therefore, in view of Bauer '461, it would have been obvious to one of ordinary skill at the time the invention was made to have the operating personnel guided through the individual steps of the calculated order of processes via one or more display devices mounted on the printing-material processing machine in order to display individual or a number printing processes to be understood quickly by the operating personnel (as stated in Bauer '461 paragraphs [0020] and [0029]).

Re claim 9: The teachings of Zingher ‘468 and Löffler ‘820 are disclosed above.

However, Zingher '468 fails to teach the device further comprising one or more display devices for displaying the order of operations.

However, this is well known in the art as evidenced by Bauer '461. Bauer '461 discloses the device further comprising one or more display devices for displaying the order of operations (i.e. like the references of Zingher '468 and Löffler '820, the Bauer reference is used to output print jobs using production equipment (same field of endeavor). However, Bauer '461 has a planning board with display elements for displaying the individual or number of printing processes that are coordinated and scheduled in the system and this can be shown to operating personnel; see fig.1; paragraphs [0020] and [0029]-[0032]).

Therefore, in view of Bauer '461, it would have been obvious to one of ordinary skill at the time the invention was made to have one or more display devices for displaying the order of operations in order to display individual or a number printing processes to be understood quickly by the operating personnel (as stated in Bauer '461 paragraphs [0020] and [0029]).

Re claim 12: The teachings of Zingher '468 and Löffler '820 are disclosed above.

However, Zingher '468 fails to teach the device further comprising a display device or a system for acoustic communication for communicating information or errors.

However, this is well known in the art as evidenced by Bauer '461. Bauer '461 discloses the device further comprising a display device or a system for acoustic communication for communicating information or errors (i.e. like the references of Zingher '468 and Löffler '820, the Bauer reference is used to output print jobs using production equipment (same field of endeavor). However, Bauer '461 has a planning

board with display elements for displaying the individual or number of printing processes that are coordinated and scheduled in the system and this can be shown to operating personnel. This information is used to communicate information to the user or operating personnel and this system is also capable of displaying operating errors to the user; see fig.1; paragraphs [0020] and [0029]-[0032]).

Therefore, in view of Bauer '461, it would have been obvious to one of ordinary skill at the time the invention was made to have a display device or a system for acoustic communication for communicating information or errors in order to display individual or a number printing processes to be understood quickly by the operating personnel (as stated in Bauer '461 paragraphs [0020] and [0029]).

7. Claims 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zingher '468, as modified by Löffler '820 and Bauer '461, and further in view of Noyes '792 (US Pub No 2003/0011792).

Re claim 7: The teachings of Zingher '468 and Löffler '820 are disclosed above.

However, Zingher '468 fails to teach the method wherein the established order of processes is communicated to operating personnel.

However, this is well known in the art as evidenced by Bauer '461. Bauer '461 discloses the established order of processes is communicated to operating personnel (i.e. like the references of Zingher '468 and Löffler '820, the Bauer reference is used to output print jobs using production equipment (same field of endeavor). However, Bauer '461 has a planning board with display elements for displaying the individual or number

of printing processes that are coordinated and scheduled in the system and this can be shown to operating personnel. This information is used to communicate information to the user or operating personnel and this system is also capable of displaying operating errors to the user; see fig.1; paragraphs [0020] and [0029]-[0032]).

However, Zingher '468 in view of Bauer '461 fails to teach in acoustic form.

However, this is well known in the art as evidenced by Noyes '792. Noyes '792 discloses in acoustic form (i.e. the system of Noyes is similar to the systems of Bauer and Zingher in the manner in which all systems are concerned with outputting print data (same field of endeavor). However, Noyes '792 discloses a printer emitting a sound to alert the user that the process is about to perform a test print in the system. A variety of sounds are used to communicate the process that is occurring in the printer. The process of establishing an order of processes from Zingher '468 combined with the communication to the personal of the information by Bauer '461, all incorporated with using the sounds of Noyes '792 to indicate a process in the printer performs the above feature; see paragraphs [0164]-[0166]).

Therefore, in view of Noyes '792, it would have been obvious to one of ordinary skill at the time the invention was made to have the established order of processes is communicated to operating personnel in acoustic form in order to emit sounds that indicate a process in a printer (as stated in Noyes '792 paragraphs [0164]-[0166] and [0193]).

Re claim 10: The teachings of Zingher '468 and Löffler '820 are disclosed above.

However, Zingher '468 fails to teach the device further comprising a system for communication of the established order of operations to operating personnel.

However, this is well known in the art as evidenced by Bauer '461. Bauer '461 discloses a system for communication of the established order of operations to operating personnel (i.e. Bauer '461 has a planning board with display elements for displaying the individual or number of printing processes that are coordinated and scheduled in the system and this can be shown to operating personnel. This information is used to communicate information to the user or operating personnel and this system is also capable of displaying operating errors to the user; see fig.1; paragraphs [0020] and [0029]-[0032]).

However, Zingher '468 in view of Bauer '461 fails to teach acoustic communication.

However, this is well known in the art as evidenced by Noyes '792. Noyes '792 discloses acoustic communication (i.e. the system of Noyes is similar to the systems of Bauer and Zingher in the manner in which all systems are concerned with outputting print data (same field of endeavor). However, Noyes '792 discloses a printer emitting a sound to alert the user that the process is about to perform a test print in the system. A variety of sounds are used to communicate the process that is occurring in the printer. The process of establishing an order of processes from Zingher '468 combined with the communication to the personal of the information by Bauer '461, all incorporated with using the sounds of Noyes '792 to indicate a process in the printer performs the above feature; see paragraphs [0164]-[0166]).

Therefore, in view of Noyes '792, it would have been obvious to one of ordinary skill at the time the invention was made to have a system for acoustic communication of the established order of operations to operating personnel in order to emit sounds to that indicate a process in a printer (as stated in Noyes '792 paragraphs [0164]-[0166] and [0193]).

8. Claim 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Zingher '468, modified by Löffler '820, Bauer '461 and Noyes '792, and further in view of Wasenius '320 (US Pub No 2002/0151320).

Re claim 11: The teachings of Zingher '468, modified by Löffler '820, Bauer '461 and Noyes '792 are disclosed above.

Zingher '468 teaches the device wherein the system connected to the control computer (i.e. the data processing device includes a processor that controls the determination of the order of processing the print jobs; see col. 3, lines 1-66, col. 4, lines 1-17, 44-63 and col. 5, lines 8-49).

However, Zingher '468 in view of Bauer '461 fails to teach a system for acoustic communication.

However, this is well known in the art as evidenced by Noyes '792. Noyes '792 discloses a system for acoustic communication (i.e. Noyes '792 discloses a printer emitting a sound to alert the user that the process is about to perform a test print in the system. A variety of sounds are used to communicate the process that is occurring in the printer. The process of establishing an order of processes from Zingher '468

combined with the communication to the personal of the information by Bauer '461, all incorporated with using the sounds of Noyes '792 to indicate a process in the printer performs the above feature; see paragraphs [0164]-[0166]).

However, Zingher '468, modified by Bauer '461, and further in view of Noyes '792 fails to teach includes at least one headset wirelessly.

However, this is well known in the art as evidenced by Wasenius '320. Wasenius '320 discloses a system for acoustic communication includes at least one headset wirelessly connected to the control computer (i.e. the system of Wasenius is similar to the reference of Zingher in the manner in which Zingher's printing device communicates with a remote device that processes data. Noyes contains a system in which a computer communicates with another device, which is similar to the invention of Wasenius (same field of endeavor). However, Wasenius '320 discloses in the description of the background, a computer with a wireless headset is disclosed to meet basic communication needs; see paragraph [0004]).

Therefore, in view of Wasenius '320, it would have been obvious to one of ordinary skill at the time the invention was made to have a system for acoustic communication includes at least one headset wirelessly connected to the control computer in order to meet basic communication needs in the system (as stated in Wasenius '320 paragraphs [0004] and [0005]).

9. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zingher '468, as modified by the features of Löffler '820, as applied to claims 1, 8 and 13 above, and further in view of Pfeiffer '102 (USP 5447102).

Re claim 14: The teachings of Zingher '468 and Löffler '820 are disclosed above.

However, Zingher '468 fails to teach the printing press further comprising at least one main drive for driving printing cylinders and plate cylinders or a blanket cylinder as well as separately driven inking units and inking rollers that can be turned off.

However, this is well known in the art as evidenced by Pfeiffer '102. Pfeiffer '102 discloses the printing press further comprising at least one main drive for driving printing cylinders and plate cylinders or a blanket cylinder (i.e. the invention of Pfeiffer is similar to the Zingher reference in the manner in which the invention uses printing production devices to output printed data (same field of endeavor). However, looking at figure 1A, the press drive (25) drives both the plate cylinder (11) and the blanket cylinder (16). These components have their own separate drivers; see fig. 1A; col. 5, lines 50-66 and col. 6, lines 1-67) as well as separately driven inking units and inking rollers that can be turned off (i.e. the inking units (12) have associated ink rollers (32) and the vibrator roller drive (29) with the application throw-off drives the ink applicator rollers. These same ink applicator rollers can be turned off as well; see col. 6, lines 1-46 and col. 8, lines 34-57).

Therefore, in view of Pfeiffer '102, it would have been obvious to one of ordinary skill at the time the invention was made to have a printing press comprising at least one main drive for driving printing cylinders and plate cylinders or a blanket cylinder as well

as separately driven inking units and inking rollers that can be turned off in order to have a printing unit apart of a rotary printing press (as stated in Pfeiffer '102 col. 5, lines 50-54).

Re claim 15: The teachings of Zingher '468 and Löffler '820 are disclosed above.

However, Zingher '468 fails to teach the printing press further comprising individual drives for driving cylinders or additional components.

However, this is well known in the art as evidenced by Pfeiffer '102. Pfeiffer '102 discloses the printing press further comprising individual drives for driving cylinders or additional components (i.e. the invention of Pfeiffer is similar to the Zingher reference in the manner in which the invention uses printing production devices to output printed data (same field of endeavor). However, the press drive is an example of an individual drive for the printing cylinder that will drive the printing cylinder to rotate. The other individual drives for the additional components can include the drives for the inking unit and the respective ink rollers; see fig. 1A; col. 5, lines 50-66 and col. 6, lines 1-67).

Therefore, in view of Pfeiffer '102, it would have been obvious to one of ordinary skill at the time the invention was made to have individual drives for driving cylinders or additional components in order to auxiliary mechanisms to drive different components in the printing unit (as stated in Pfeiffer '102 see col. 5, lines 50-54 and col. 6, lines 40-46).

10. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zingher '468 in view of Löffler '820, Bauer '461 and Jackson '848.

Re claim 16: The teachings of Zingher ‘468 and Löffler ‘820 are disclosed above.

However, Zingher ‘468 fails to teach the method as recited in claim 1 wherein the establishing step includes accessing a table containing durations of the operations.

However, this is well known in the art as evidenced by Bauer '461. Bauer ‘461 discloses wherein the establishing step includes accessing a table containing the operations (i.e. in Bauer '461, the memory unit (13) contains planning data that can be accessed by the production unit in the system. The memory unit is considered as a table since it is accessed and it contains information that is used in the production sequence related to the printing processes; see paragraphs [0012]-[0015] and [0027]-[0031]).

Therefore, in view of Bauer ‘461, it would have been obvious to one of ordinary skill at the time the invention was made to have the method step of wherein the establishing step includes accessing the table containing the operations in order to make planning data available to be called up by production when scheduling and coordinating a print job (as stated in Bauer ‘461 paragraphs [0027]-[0030]).

However, Zingher ‘468 in view of Bauer ‘461 fails to teach containing durations of the operations.

However, this is well known in the art as evidenced by Jackson ‘848. Jackson ‘848 discloses containing durations of the operations (i.e. like the reference of Bauer, the Jackson reference is concerned with the workflow and coordination of jobs in the system. Like the Zingher reference, the Jackson reference is concerned with producing printed material from print jobs (same field of endeavor). However, information

regarding the speed and time required for the machines to perform various operations is contained in the job cost module (14). With the combination of a memory unit of Bauer containing a unit that is accessible and has information regarding operations combined with the feature of containing information on the time required to perform an operation in the Jackson reference, the above feature is performed; see col. 5, lines 13-39).

Therefore, in view of Jackson '848, it would have been obvious to one of ordinary skill at the time the invention was made to have the method step of containing durations of the operations in order to have information regarding the time required for machines to perform various operations (as stated in Jackson '848 col. 5, lines 13-39).

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHAD DICKERSON whose telephone number is (571)270-1351. The examiner can normally be reached on Mon. thru Thur. 9:00-6:30 Fri. 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler Haskins can be reached on (571)-272-7406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. D./
/Chad Dickerson/
Examiner, Art Unit 2625

/Twyler L. Haskins/
Supervisory Patent Examiner, Art Unit 2625